

Mr. Tim Moment  
Cherished Memories Pet Cremations  
9055 East 750 South  
Wolcottville, IN 46795

Dear Mr. Moment:

Re: Exempt Construction and Operation Status,  
**CP 087-13936-00048**

The application from Cherished Memories Pet Cremations, received on February 19, 2001, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following pet incineration operation, to be located at 9055 East 750 South in Wolcottville, Indiana, is classified as exempt from air pollution permit requirements:

One (1) 0.4 MMBtu/hr No. 2 fuel oil fired pet incinerator, equipped with a 0.21 MMBtu/hr primary chamber and a 0.19 MMBtu/hr secondary chamber, with a maximum design process rate of 76.6 lb/hr.

The following conditions shall be applicable:

(1) Pursuant to 326 IAC 5-1-2 (Visible Emission Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), the visible emissions shall meet the following:

- (a) visible emissions shall not exceed an average of 40% opacity in 24 consecutive readings.
- (b) visible emissions shall not exceed 60% opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

(2) 326 IAC 4-2: (Incinerator Rule):

Pursuant to 326 IAC 4-2-2, the pet incinerator shall:

- (a) consist of a primary and secondary chamber or the equivalent,
- (b) be equipped with a primary burner unless burning wood products,
- (c) comply with the requirements of Condition 1 and 326 IAC 2,
- (d) be maintained properly as specified by the manufacturer and approved by the Commissioner,
- (e) be operated according to the manufacturer's recommendations and only burn waste approved by the Commissioner,
- (f) comply with other state and/or local rules or ordinances regarding installation and operation of incinerators,
- (g) be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented,
- (h) not emit particulate matter in excess of 0.5 pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to 50% excess air, and
- (i) not create a nuisance or fire hazard.

If any of the above result, the burning shall be terminated immediately.

## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for a New Source Construction and Exemption**

#### **Source Background and Description**

Source Name: Cherished Memories Pet Cremations  
Source Location: 9055 East 750 South Wolcottville, Indiana 46795  
County: LaGrange  
SIC Code: 7261  
Operation Permit No.: 087-13936-00048  
Permit Reviewer: SDF

The Office of Air Quality (OAQ) has reviewed an application from Cherished Memories Pet Cremations relating to the construction and operation of one (1) new pet incineration operation.

#### **Unpermitted Emission Units and Pollution Control Equipment**

The source consists of:

One (1) 0.4 MMBtu/hr No. 2 fuel oil fired pet incinerator, equipped with a 0.21 MMBtu/hr primary chamber and a 0.19 MMBtu/hr secondary chamber, with a maximum design process rate of 76.6 lb/hr .

#### **Enforcement Issue**

There are no enforcement actions pending.

#### **Recommendation**

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application.

A complete application for the purposes of this review was received on February 19, 2001.

#### **Emission Calculations**

##### **UNRESTRICTED PTE:**

##### **Incinerator Emissions:**

The following calculations determine the unrestricted PTE from the incinerator based on a maximum throughput of 76.6 lb/hr, emission factors from AP-42, Table 2.1-12, emissions before controls, and 8,760 hours of operation:

$\text{throughput (lb/hr)} * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb} * \text{Ef lb/ton} * 1/2000 \text{ ton/lb} = \text{ton/yr}$

	PM	PM10	SO2	NOx	VOC	CO
Ef	7.0 lb/ton	7.0 lb/ton	2.5 lb/ton	3.0 lb/ton	3.0 lb/ton	10.0 lb/ton
Emissions ton/yr	<b>1.20</b>	<b>1.20</b>	<b>0.40</b>	<b>0.50</b>	<b>0.50</b>	<b>1.70</b>

#### Combustion Emissions:

The following calculations determine the unrestricted PTE from the incinerator combustion based a maximum capacity of 0.4 MMBtu/hr, No. 2 fuel oil combustion, emissions before controls, a heating value of 140,000 Btu/gal, emission factors from AP-42, Chapter 1.3, and 8,760 hours of operation.

$$\text{MMBtu/hr} * 8760 \text{ hr/yr} * 1/0.140 \text{ gal/MMBtu} * 1/1000 \text{ kgal/gal} = \text{kgal/yr}$$

$$\text{kgal/yr} * \text{Ef lb/kgal} * 1/2000 \text{ ton/lb} = \text{ton/yr}$$

	PM	PM10	SO2	NOx	VOC	CO
Ef	2.0 lb/ton	2.0 lb/ton	142 lb/ton	20 lb/ton	0.34 lb/ton	5.0 lb/ton
Emissions ton/yr	<b>neg.</b>	<b>neg.</b>	<b>1.8</b>	<b>0.3</b>	<b>neg.</b>	<b>0.1</b>

#### Total Unrestricted PTE:

The total unrestricted PTE is the sum of the incinerator and incinerator combustion emissions.

	PM	PM10	SO2	NOx	VOC	CO
Incinerator	1.20	1.20	0.40	0.50	0.50	1.70
Combustion	neg.	neg.	1.80	0.30	neg.	0.10
<b>Total</b>	<b>1.20</b>	<b>1.20</b>	<b>2.20</b>	<b>0.80</b>	<b>0.50</b>	<b>1.80</b>

#### EMISSIONS AFTER CONTROLS:

The emissions are uncontrolled. Thus, the emissions after controls equals the unrestricted PTE.

	PM	PM10	SO2	NOx	VOC	CO
Incinerator	1.20	1.20	0.40	0.50	0.50	1.70
Combustion	neg.	neg.	1.80	0.30	neg.	0.10
<b>Total</b>	<b>1.20</b>	<b>1.20</b>	<b>2.20</b>	<b>0.80</b>	<b>0.50</b>	<b>1.80</b>

### Potential To Emit of Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	1.20
PM-10	1.20
SO <sub>2</sub>	2.20
VOC	0.50
CO	1.80
NO <sub>x</sub>	0.80

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants, of each single HAP, combined HAPs are less than the applicable registration levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is exempt pursuant to the provisions of 326 IAC 2-1.1-3.
- (b) Fugitive Emissions  
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

### County Attainment Status

The source is located in LaGrange County.

Pollutant	Status
PM-10	attainment or unclassifiable
SO <sub>2</sub>	attainment or unclassifiable
NO <sub>2</sub>	attainment or unclassifiable
Ozone	attainment or unclassifiable
CO	attainment or unclassifiable
Lead	attainment or unclassifiable

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. LaGrange County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) LaGrange County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

**Source Status**

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	1.20
PM10	1.20
SO <sub>2</sub>	2.20
VOC	0.50
CO	1.80
NO <sub>x</sub>	0.80
Single HAP	neg.
Combination HAPs	neg.

This new source is not a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

**Part 70 Permit Determination**

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

**Federal Rule Applicability**

**(a) New Source Performance Standards (NSPS):**

**40 CFR 60, Subpart E, Standards of Performance for Incinerators:**

40 CFR 60, Subpart E does not apply to the proposed incinerator because the maximum throughput (0.91 tons/day) is less than the applicable level of 50 tons/day.

**(b) National Emission Standards for Hazardous Air Pollutants (NESHAP):**

There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

**State Rule Applicability - Entire Source**

**326 IAC 2-6 (Emission Reporting)**

This source is located in LaGrange County and the potential to emit of all applicable pollutants is less than 100 tons per year. Therefore, 326 IAC 2-6 does not apply.

**326 IAC 5-1 (Visible Emissions Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**State Rule Applicability - Individual Facilities**

**326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))**

The operation of the pet incineration operation will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

**326 IAC 4-2: (Incinerator Rule):**

The proposed incinerator is subject to 326 IAC 4-2 because the incinerator emits regulated pollutants and is not a residential unit consisting of four or fewer families or incinerators for which streamlined requirements have been established in accordance with 326 IAC 2-7-24.

Pursuant to 326 IAC 4-2-2, the pet incinerator shall:

- (a) consist of a primary and secondary chamber or the equivalent,
- (b) be equipped with a primary burner unless burning wood products,
- (c) comply with the requirements of 326 IAC 5-1 and 326 IAC 2,
- (d) be maintained properly as specified by the manufacturer and approved by the Commissioner,
- (e) be operated according to the manufacturer's recommendations and only burn waste approved by the Commissioner,
- (f) comply with other state and/or local rules or ordinances regarding installation and operation of incinerators,
- (g) be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented,
- (h) not emit particulate matter in excess of 0.5 pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to 50% excess air, and

- (i) not create a nuisance or fire hazard.

If any of the above result, the burning shall be terminated immediately.

The particulate matter emissions from the incinerator based on the manufacturer's specifications are estimated to be less than 0.1 pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions which is less than the limit of 0.5 pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to 50% excess air. Thus, compliance is determined to be achieved.

## **Conclusion**

The construction and operation of this pet incinerator shall be subject to the conditions of the attached proposed exemption **087-13936-00048**.

This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

SDF

cc: File - LaGrange County  
LaGrange County Health Department  
Air Compliance - Doyle Houser  
Northern Regional Office  
Permit Tracking - Janet Mobley  
Air Programs Section- Nancy Landau